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National Space Science Data Center/ World Data Center A For Rockets and Satellites

A SEARCH FOR ULTRAVIOLET-EXCESS

OBJECTS

(Kondo, Noguchi, and Maehara 1984)

Documentation for the Machine-Readable Version



November 1990

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ULTRAVIOLET-EXCESS OBJECTS (KONDO, NOGUCHI,
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A SEARCH FOR ULTRAVIOLET-EXCESS OBJECTS

(Kondo, Noguchi, and Maehara 1984)

Documentation for the Machine-Readable Version

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November 1990

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World Data Center A for Rockets and Satellites (WDC-A-R&S)
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Abstract

A detailed description of the machine-readable version of the catalog, as it is currently being distributed from the Astronomical Data Center, is given. The catalog is a list of 1186 objects found during two surveys with the Kiso Schmidt telescope of the Tokyo Astronomical Observatory. The data include equatorial coordinates, magnitudes, color indices, and identifications for previously cataloged objects.

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1.0 Introduction

1.1 Description

A list of ultraviolet-excess objects (designated KUV) has been compiled as a result of a search conducted with the 105-cm Schmidt telescope of the Kiso station of the Tokyo Astronomical Observatory in Japan. The UGR three-image method was used for detection of the objects cataloged, which range in blue magnitude from about 10.0 to 18.5. The list contains positions to an accuracy of approximately \pm 0.5, magnitudes and color indices, plus notes on types of objects and identifications for those that have previously appeared in the literature.

This document describes the machine-readable version of the KUV survey list and is intended to facilitate processing of the machine-readable data without problems and guesswork. For additional information on how the observations were made, the objects detected and measured, and the statistics of each field, the source references should be consulted. The 1984 publication also gives finding charts for the objects listed in both papers. A copy of this document should be transmitted to any recipient of the machine-readable catalog originating from one of the international network of astronomical data centers.

1.2 Source References

Kondo, M., Noguchi, T., and Maehara, H. 1984, Ann. Tokyo Astron. Obs., 2nd Ser., 20, 130

Noguchi, T., Maehara, H., and Kondo, M. 1980, Ann. Tokyo Astron. Obs., 2nd Ser., 18, 55

2.0 Structure

2.1 File Summary

The machine version of the KUV survey list consists of a single file. Table 1 gives the machine-independent file attributes. All logical records are of fixed length, and, if the catalog is received on magnetic tape, it will contain blocks of fixed length (as noted below), except that the last block may be short.

	A Search for Ultraviolet-	Excess Objects (Kondo, Noguchi, and	i Maehara 1984)
File	Contents	Record Format	Logical Record Length	Total Number of Logical Records
1	Catalog	FB	80	1186

Table 1. Summary Description of Catalog File: FB = Fixed length blocks (last may be short)

The information contained in the above table is sufficient for a user to describe the indigenous characteristics of the machine-readable version of the KUV survey list to a computer. Information easily varied from installation to installation, such as block size (physical record length), blocking factor (number of logical records per physical record), total number of blocks, density, number of tracks, and character coding (ASCII, EBCDIC) for tapes is not included, but should always accompany secondary copies if any are supplied to other users or installations.

2.2 Catalog (File 1 of 1)

Table 2 gives a byte-by-byte description of the contents of the data file. A suggested Fortran format specification for reading each data field is included and can be modified depending upon individual programming and processing requirements (Fortran 77 character string-type formats are used); however, caution is advised when substituting format specifications, since certain fields contain character data and others are blank when data are absent. Default (null) values are always blanks in data fields for which primary suggested formats are given as A. Where no default values are given for numerical fields, there are always valid data present.

Byte(s)	Units	Suggested Format	Default Value	Data
1-10		A10		KUV coordinate designation
11		A1		Component identification
12		1X		Blank
13-19		A 7		Area number
20-22		3X		Blank
23-24	hours	I 2		Right ascension, a
25		1X		Blank
26-27	min	I2		α
28		1X		Blank
29-33	sec	F5.2		α
34-35		2X		Blank
36		A1		Sign of declination zone
37-38	۰	I2		Declination, δ
39		1X		Blank
40-41	,	I2		δ
42		1X		Blank
43-46	7	F4.1		δ
47-48		2X		Blank
49-53	mag	F5.2		G magnitude
54		A 1		G uncertainty code
55-58	mag	F4.1		Color index (C. I.)
59		A1		C. I. uncertainty code
60		1X		Blank
61		A1		Object code
62		1X		Blank
63-80		A18		Alternate designation

Table 2. Catalog Record Format

KUV designation

Composed of hours and minutes of right ascension, sign, and degrees and minutes of arc of declination. Note that this coordinate designation does not follow the standard IAU convention because the coordinates are rounded and not truncated.

Area number

Another designation consisting of a Kiso area number (see Kiso Information Bulletin No. 1, 1979) and a serial number within the area.

Equatorial coordinates

Equinox 1950, epoch of observation.

G magnitude

The G (green) magnitude of the "three-image (UGR) method" used for efficient detection of blue objects, e.g., by Haro & Herbig (1955), Iriarte & Chavira (1957), Haro & Luyten (1962), and others. See the source reference for additional details. A colon (:) in byte 54 denotes an uncertain value.

Color index

Estimated as the enhancement in the U image relative to the G, calibrated with known values of U-B color. A colon (:) in byte 59 denotes an uncertain value.

Object code

A letter code to denote the following characteristics:

W spectroscopically confirmed white dwarf

Q quasar

D diffuse object with possible accompanying halo

V variable that is definitely brighter or fainter on print of the Palomar Observatory Sky Survey than on the Kiso plate

Alternate designation

Object designation in a previous catalog, composed of a reference number in bytes 63-64, followed by the designation in the cited catalog. The references are given as an appendix to Table 2 in Kondo, Noguchi, and Maehara (1984).

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3.0 History

3.1 Remarks and Modifications

A magnetic tape containing the first and second Kiso surveys in separate files was received from Dr. M. Kondo on March 11, 1985. The following modifications were made to produce the current catalog:

- 1. The two lists were moved to online storage and merged.
- 2. Minus signs on negative declinations were moved to always occur in the same byte. Zero declinations had lost their signs; these were added by using the respective KUV designations. Plus signs were then added to all positive declinations.
- 3. Uncertainty codes for G magnitude were moved to byte 54 so that they do not occur within the magnitude field.
- 4. The combined list was sorted by increasing right ascension.

4.0 Acknowledgments and References

4.1 Acknowledgments

Appreciation is expressed to Dr. Masayuki Kondo for supplying the catalog on request and for sending reprints of the published papers along with his explanatory letter. Drs. Kondo, Maehara, and Noguchi graciously reviewed a draft copy of this document and approved its release. I also thank Dr. S. Nishimura for reviewing the document.

4.2 References

Haro, G., and Herbig, G. H. 1955, Bol. Obs. Tonantzintla y Tacubaya No. 14, 8

Haro, G., and Luyten, W. J. 1962, Bol. Obs. Tonantzintla y Tacubaya No. 32, 37

Iriarte, B., and Chavira, E. 1957, Bol. Obs. Tonantzintla y Tacubaya No. 16, 3

Kondo, M., Noguchi, T., and Maehara, H. 1984, Ann. Tokyo Astron. Obs., 2nd Ser., 20, 130

Noguchi, T., Maehara, H., and Kondo, M. 1980, Ann. Tokyo Astron. Obs., 2nd Ser., 18, 55

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5.0 Sample Listing

The sample listing given on the following pages shows logical records exactly as they are recorded in the machine-readable version of the catalog. Groups of records from the beginning and end of the file are illustrated. The beginning of each record and the bytes within the record are indicated by the column heading index across the top of each page (digits read vertically).

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Data File Mame: Ultraviolet-Excess Obj.

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1 to	141	80 bytes	ADC002
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15.0	14.0	17.5	17.0	17.5	16.8	16.9	17.8	14.9	15.8	17.7	17.5	17.8	17.0	16.5	17.8	17.5	17.0	18.0	17.5
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28.92	33.88	56.14	59.51	44.65	3.96	10.37	41.66	46.01	54.50	23.09	34.92	41.35	39.64	56.49	5.22	16.81	46.91	0.34	49.27
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4	4	23	7		232	232					4	232		232	232		232	232	23309+252
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